What is claimed is:

1. An optical transceiver comprising:

(a) a substrate;

(b) a transmitter section formed on the substrate;

the transmitter section including a light-emitting element;

(c) a receiver section formed on the substrate to be close to the transmitter section;

the receiver section including a light-receiving element;

(d) a conductive first connection member fixed near the substrate;

the first connection member having a first opening that allows a first light beam from the light-emitting element to penetrate the first connection member;

the first opening being aligned to an optical axis of the light-emitting element;

the first connection member having a second opening that allows a second light beam toward the light-receiving element to penetrate the first connection member;

the second opening being aligned to an optical axis of the light-receiving element; and

(e) a transparent second connection member fixed near the first member in such a way as to shut the first opening and the second

opening of the first connection member at a front of the first connection member;

the first light beam from the light-emitting element propagating through the first opening and the second connection member;

the second light beam toward the light-receiving element propagating through the second connection member and the second opening.

2. The transceiver according to claim 1, wherein the second connection member is formed by a thin plate of plastic or glass.

3. The transceiver according to claim 1, wherein the second connection member has a lens function for at least one of the first and second light beams.

4. The transceiver according to claim 1, wherein the second connection member is formed by a thin plate of plastic or glass;

and wherein the second connection member includes a first lens near the first opening of the first connection member and a second lens near the second opening thereof.

5. The transceiver according to claim 4, wherein each of the first and second lenses is a convex lens.

6. The transceiver according to claim 5, wherein the first lens has a focal length defined in such a way that the first light beam emitted from the light-emitting element converges on an opposing end face of an optical fiber to be optically connected to the transceiver.

7. The transceiver according to claim 4, wherein the first lens is a convex lens and the second lens is a concave lens.

8. The transceiver according to claim 7, wherein the first lens has a focal length defined in such a way that the first light beam emitted from the light-emitting element converges on an opposing end face of an optical fiber to be optically connected to the transceiver.

9. The transceiver according to claim 1, wherein the first connection member has a recess formed on its front face;

and wherein the second connection member is located in the recess.

10. The transceiver according to claim 9, wherein the first connection member has a thickness greater than a depth of the recess, thereby part of the first connection member protrudes from the

recess.

11. The transceiver according to claim 9, further comprising a connection structure for connecting optical fibers supported by an optical connector to the transceiver formed on the first connection member;

wherein the connection structure is designed in such a way that opposing ends of the fibers are contacted with the transparent second connection member.

12. The transceiver according to claim 11, wherein the opposing ends of the fibers protrude backward from a rear face of the connector by a specific length.

13. The transceiver according to claim 1, wherein the first connection member is made of metal.

14. The transceiver according to claim 1, wherein the first connection member is made of a dielectric core and a metal film that covers a whole surface of the core.

15. The transceiver according to claim 1, wherein the first connection member is electrically connected to the ground.

16. The transceiver according to claim 1, further comprising a metallic shielding member located on the surface of the substrate between the transmitter section and the receiver section;

wherein the metallic shielding member separates the transmitter section and the receiver section from each other.

17. The transceiver according to claim 1, wherein the first connection member has a recess formed on its front face;

and wherein the second connection member is fixed to the first connection member in the recess;

and wherein the second connection member includes a first lens near the first opening of the first connection member and a second lens near the second opening thereof.

18. The transceiver according to claim 1, wherein the first and second light beams are approximately parallel to the surface of the substrate;

and wherein the first connection member is fixed near an end of the substrate.